

CLAIMS

What is claimed is:

1. A method for presenting email threads, comprising the steps of:
identifying the logical components of each message in a thread;
5 determining the relationships between the messages in the thread using
the logical components; and
generating a document based upon the determined relationships.
2. The method of claim 1, wherein the step of generating comprises
removing redundant logical components from the document.
- 10 3. The method of claim 1, wherein the step of identifying logical
components comprises generating a message tree that includes nodes that recursively
divide each of the messages into a main body, nested excerpts from other messages,
and at least one subdivision wherein each subdivision is divided into lowest-level
logical components.
- 15 4. The method of claim 3, wherein the step of generating a message tree
comprises:
performing a top-down, recursive descent analysis to recursively divide each
of the messages into sections, each section being one of a main-body of the message,
an incorporated excerpt, a suffixed excerpt, the body of an excerpt, and an excerpt
20 within an excerpt; and
decomposing each section into logical components using a weighted
finite-state machine.
5. The method of claim 4, wherein the step of decomposing comprises:
logically concatenating subsections of the body that is separated by
25 incorporated excerpts; and
applying a weighted finite state machine to the result.
6. The method of claim 4, wherein the step of decomposing comprises:
building a weighted network using a weighted finite state grammar;
30 identifying the maximally weighted path through the network; and

traversing the maximally weighted path to identify the logical components of the section.

7. The method of claim 1, wherein the document includes a compressed
5 form of each of the messages.

8. The method of claim 7, wherein each of the compressed forms comprises non-extraneous parts of the primary text and abbreviated forms of incorporated excerpts.

9. The method of claim 1, wherein the document includes a replies as
10 annotations form for each of the messages.

10. A computer controlled display system comprising:
a display for presenting the e-mail threads on a viewing area of the display; and
a processor that is adapted to identify the logical components of each
15 message in a thread, determine the relationships between each message in the thread using the logical components, and generate a medium based upon the determined relationships.

11. The system of claim 10, wherein the processor is adapted to remove redundant logical components from the medium.

12. The system of claim 10, wherein the processor is adapted to generate a
20 message tree that includes nodes that divide each message into a main body and into excerpts from other messages and further into lowest-level logical components.

13. The system of claim 12, wherein the processor is adapted to perform a
25 top-down, recursive descent analysis to create nodes of the message tree and to analyze divided extents using a weighted finite state machine.

14. The system of claim 12, wherein the processor is adapted to identify the maximally weighted path through the weighted finite state machine, and to develop a sub tree by traversing the maximally weighted path.

15. The system of claim 10, wherein the document includes a compressed form of each of the messages.

16. The system of claim 15, wherein each of the compressed form contains non-extraneous parts of the primary text.

5 17. The system of claim 10, wherein the document includes a replies as annotations form for each of the messages.

18. An information storage media comprising:
information that presents the e-mail threads on a viewing area of a display;

10 information that identifies logical components of each of the messages in a thread;

information that determines relationships between each of the messages in the thread using the logical components; and

15 information that generates a medium based upon the determined relationships.

19. The information storage media of claim 18, further comprising information that removes redundant logical components from the medium.

20. The information storage media of claim 18, further comprising information that generates a message tree that includes nodes that divide each message into a main body and into excerpts from other messages and further into lowest-level logical components.

21. The information storage media of claim 18, further comprising:

information that performs a top-down, recursive descent analysis to create some nodes of the message tree; and

25 information that analyzes divided extents using a weighted finite state machine.

22. The information storage media of claim 21, further comprising;

information that identifies a maximally weighted path through the weighted finite state machine; and

information that develops a sub tree by traversing the maximally weighted path.

5 23. The information storage media of claim 18, wherein the medium includes a compressed form of each of the messages.

 24. The system of claim 23, wherein each of the compressed form contains non-extraneous parts of the primary text.

10 25. The system of claim 18, wherein the medium includes a replies as annotations form for each of the messages.

15 26. A computer system for presenting email threads comprising a computer processor for: (a) identifying logical components of each message in a thread; (b) determining relationships between the messages in the thread using the logical components; and (c) generating a medium based upon the determined relationships, wherein the e-mail threads are presented in the medium as semi-connected text.

 27. The system of claim 26, wherein the medium is one of a human readable document and a computer readable document.